

CLAIMS

What is claimed is:

1. A rotary head pad printer comprising:
a frame;
a head mounted to the frame for rotational movement on the frame, the head rotatable so as to define a plane; and
at least one pad assembly mounted to the head, the pad assembly reciprocating between an extended position and a retracted position, the pad assembly rotatable about an axis between a first rotational position and a second rotational position, wherein the assembly reciprocates between the extended and retracted positions at the first and second rotational positions and wherein the first and second rotational positions are non-parallel to one another.
2. The rotary head printer in accordance with claim 1 including two pad assemblies mounted to the head, each pad assembly reciprocating between an extended position and a retracted position.
3. The rotary head printer in accordance with claim 2 wherein the assemblies are mounted to the head at an angle relative to one another between zero degrees and 180 degrees, exclusive of zero degrees.
4. The rotary head printer in accordance with claim 3 wherein the assemblies are mounted to head at an angle relative to one another of about 90 degrees.
5. The rotary head printer in accordance with claim 1 wherein the plane defined by the head rotation is at an angle of about 45 degrees to the horizontal.
6. The rotary head printer in accordance with claim 1 including a head drive for rotating the head.
7. The rotary head printer in accordance with claim 6 wherein the head drive is a servomotor.

8. The rotary head printer in accordance with claim 1 wherein the pad assembly includes a reciprocating cylinder.

9. The rotary head printer in accordance with claim 8 wherein the reciprocating cylinder is a pneumatic cylinder.

10. The rotary head printer in accordance with claim 2 wherein the pad assemblies reciprocate independently of one another.

11. The rotary head printer in accordance with claim 2 wherein the head rotates 180 degrees to move the pad assemblies between the first and second rotational positions.

12. A rotary head pad printer comprising:
a frame;
a head movably mounted to the frame, the being movable so as to define a plane;
a drive for moving the head; and
first and second reciprocating pad assemblies mounted to the head, each of the pad assemblies reciprocating independently of the other between an extended position and a retracted position, wherein the head is rotatable to position the first pad assembly at an inking position when the second pad assembly is at a printing position and to rotate through a semicircular path to reverse the positions of the first and second pad assemblies, and wherein reciprocation of the pad assemblies is nonparallel relative to one another.

13. The rotary head printer in accordance with claim 12 wherein the first and second assemblies reciprocate relative to one another and form an angle of between but greater than about zero degrees and about 180 degrees.

14. The rotary head printer in accordance with claim 13 wherein the angle formed between the first and second assemblies is about 90 degrees.

15. The rotary head printer in accordance with claim 12 wherein the head rotational plane is at an angle of about 45 degrees to the horizontal.

16. The rotary head printer in accordance with claim 12 wherein each of the first and second pad assemblies includes a reciprocating cylinder.

17. The rotary head printer in accordance with claim 15 wherein the reciprocating cylinder are operable independent of the head drive.

18. The rotary head printer in accordance with claim 12 wherein the head rotates 180 degrees to move the pad assemblies between the inking and printing positions.

19. A rotary head pad printer comprising:
a frame;
a head rotatably mounted to the frame; and
a pair of reciprocating pad assemblies carried by the head, each of the pad assemblies reciprocating independently of the other between an extended position and a retracted position, the head being positionable to orient a first pad assembly at a first position when a second pad assembly is at a second position and to rotate about 180 degrees to reorient the first pad assembly to lie at the second position when the second pad assembly lies at the first position, the pad assemblies reciprocating in respective first and second directions that are nonparallel to one another.

20. The rotary head printer in accordance with claim 19 wherein the first pad assembly in the first position extends to define a first target area and wherein the second pad assembly in the second position extends to define a second target area and wherein upon rotation of the head, the first pad assembly in the second position extends to the second target area and the second pad assembly in the first position extend to the first target area, the first and second assemblies extending in directions nonparallel to one another.